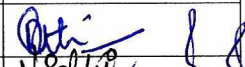
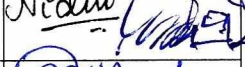
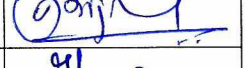


 An ISO 9001:2015 Company	TECHNICAL PRE-QUALIFICATION REQUIREMENTS (PQR) FOR VENDORS		PQR/ISE/MTCW/EOI/2019/46	
	INSULATION SYSTEMS ENGINEERING		Rev. No.: 00	
	Technical PQR for Issuing EOI for Polyester Film Backed Mica Paper Taped Rectangular Copper Wires as per Specifications BP28189 and IN. SK. 46044		Rev. Dt.: 03/12/2019 Sht. 1 of 4 shts.	

Cl. No.	Description	Vendor to comment	
		Compliance	Relevant supporting documents to be submitted
1.	Only Original manufacturers are eligible. Traders / agents are not acceptable and their offers will be rejected.	Yes/No	Certificate/ documentary evidence of being original manufacturer of this item.
2	Vendor to confirm complete compliance to specifications BP28189 and IN. SK. 46044	Yes/No	No deviation to specifications BP28189 and IN. SK. 46044 is acceptable. Signed & stamped copy of spec BP28189/ IN.SK. 46044 to be submitted signifying compliance.
3.	Copper (raw material) to be used for making rectangular copper wire must be procured from any of the BHEL approved sources as per "PQR/ISE/MTCW/EOI/2019/46 Annexure 1" Mica paper tape/ polyester film tape referred in these specifications for taping of copper wire will have to be purchased from any of the BHEL, Bhopal approved sources as per "PQR/ISE/MTCW/EOI/2019/46 Annexure 1"	Yes/No	Manufacturer TCs of raw copper, polyester film and mica tape used in supplies to BHEL should be submitted with the dispatch documents along with insulated copper supplies in case of placement of PO. Confirmation for the same to be submitted.

Distribution:		Date of Rev. 00: 03/12/2019	Name	Signature
CIM CMM AME QFD ISE	Prepared by	Abha Otti		
	Checked by	Nidhi Gupta/ Bishwanath Oraon		
	Approved by	Anirudha Tijare		
	Issued by	Gautam Kumar		
BHEL BHOPAL				

 BHEL An ISO 9001:2015 Company	TECHNICAL PRE-QUALIFICATION REQUIREMENTS (PQR) FOR VENDORS		PQR/ISE/MTCW/EOI/2019/46
	INSULATION SYSTEMS ENGINEERING		Rev. No.: 00
	Technical PQR for Issuing EOI for Polyester Film Backed Mica Paper Taped Rectangular Copper Wires as per Specifications BP28189 and IN. SK. 46044		Rev. Dt.: 03/12/2019 Sht. 2 of 4 shts.

Cl. No.	Description	Vendor to comment	
		Compliance	Relevant supporting documents to be submitted
4.	Vendor must have in-house plant and machinery, required to manufacture the above item. Following mandatory facilities must be available with the vendor 1) Manufacturing of bare rectangular copper wire 2) Mica paper/ polyester film taping facility on copper wire	Yes/No	Following documents to be submitted 1. Detailed organization chart (PQR/ISE/MTCW/EOI/2019/46 Annexure 2) 2. Plant & machinery facility available for manufacturing the said item (PQR/ISE/MTCW/EOI/2019/46 Document no. M & P/ 001 Rev 00 – Annexure 3). 3. Photographs of manufacturing facilities for bare rectangular copper wire and mica taping to be submitted
5.	All testing facilities required to test the material as per specifications BP28189/ IN.SK.46044 should be available with the firm either in-house or outsourced. The outsourced testing facilities should be duly calibrated and traceable along with accreditation to either NABL or equivalent international accreditation agency.	Yes/No	Details of testing facility used for testing above item along with List of outsourced facilities (if used), to be provided as per the format "PQR/ISE/MTCW/EOI/2019/46 Annexure 4 (Document no. TF/ 001 Rev 00)". Proof of NABL/ equivalent inter-national agency accreditation of outsourced facilities to be submitted. NABL or equivalent international agency accreditation Lab calibration certificate used for testing of this item to be submitted to BHEL along with dispatch documents in case PO is placed on the vendor.
6.	Production capacity of the firm for this material per month/ annum: The firm should have minimum manufacturing capacity of 200 tons per annum and peak production capacity of 20 tons per month	Yes/No	Confirmation to be provided

BHEL BHOPAL

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED.
IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.

 An ISO 9001:2015 Company	TECHNICAL PRE-QUALIFICATION REQUIREMENTS (PQR) FOR VENDORS		PQR/ISE/MTCW/EOI/2019/46
	INSULATION SYSTEMS ENGINEERING		Rev. No.: 00
	Technical PQR for Issuing EOI for Polyester Film Backed Mica Paper Taped Rectangular Copper Wires as per Specifications BP28189 and IN. SK. 46044		Rev. Dt.: 03/12/2019 Sht. 3 of 4 shts.

Cl. No.	Description	Vendor to comment	
		Compliance	Relevant supporting documents to be submitted
7.	Manufacturing and supply experience for preceding 5 years for mica taped rectangular copper wire to electrical machine manufacturers is required. The supply experience should cover a supply of minimum 20 tons of Mica taped rectangular copper wire in last 5 years out of which at least one supply should be in the last two years.	Yes/No	➤ Documentary proof (PO, invoice etc.) of supply by the vendor ➤ Decision regarding the sufficiency of documents to prove supply experience rests with BHEL
8.	Vendor to furnish QAP that shall be followed during manufacturing of insulated copper wire as per specs BP28189/ IN.SK.46044.	Yes/No	QAP duly filled and signed "PQR/ISE/MTCW/EOI/2019/46 Annexure 5 (Document No. QAP/ 001 Rev 00)"
9.	Manufacturing facilities assessment may be carried out by BHEL at supplier's works if required. Vendor to confirm the same.	Yes/No	Confirmation to be submitted

BHEL BHOPAL

 An ISO 9001:2015 Company	TECHNICAL PRE-QUALIFICATION REQUIREMENTS (PQR) FOR VENDORS		PQR/ISE/MTCW/EOI/2019/46
	INSULATION SYSTEMS ENGINEERING		Rev. No.: 00
	Technical PQR for Issuing EOI for Polyester Film Backed Mica Paper Taped Rectangular Copper Wires as per Specifications BP28189 and IN. SK. 46044		Rev. Dt.: 03/12/2019 Sht. 4 of 4 shts.

Cl. No.	Description	Vendor to comment	
		Compliance	Relevant supporting documents to be submitted
10.	Vendors who qualify in the above mentioned points shall submit free 20 m long samples of either or both (as informed by BHEL) of the following rectangular mica taped copper wires as per specifications 1. BP28189 (M) and 2. IN.SK.46044(H1) of approximate cross section between 4 sq. mm to 40 sq. mm along with TC. Polyester film tape for manufacturing the above free sample at Sl. No. 1 can also be procured from BHEL Bhopal, if required. Only for the purpose of submission of sample to BHEL Bhopal, polyester film can be provided by BHEL Bhopal. For future supplies, the polyester film will have to be procured by the vendors themselves from approved vendors as per Annexure 1.	Yes/No	Confirmation to be submitted
Non-qualifying criteria – For information only			
11.	Whether the vendor is registered with any other unit of BHEL?	Yes/No	If yes, the name of BHEL unit along with the list of items for which registered is to be submitted.
12.	Whether the company is ISO-9001 certified?	Yes/No	If Yes, submit valid ISO-9001 certificate.

Note:

1. In absence of compliance of above pre-qualification requirements (PQR), vendor's offer is liable to be rejected.
2. Vendors who successfully qualify in the PQR will have to get themselves registered in BHEL, Bhopal as per BHEL's vendor assessment and registration procedure.
3. Vendors who successfully meet all the above PQR requirements may be considered for trial/ development order/s for small quantities as decided by BHEL. After successfully executing these orders, the vendor may be considered for inclusion in BHEL's Product Material Directory (PMD) as a regular supplier for this item.
4. BHEL reserves the right to verify the information submitted by the vendor. In case the information submitted is found false or incorrect, the offer will be rejected and the vendor is liable to be blacklisted/ banned/ put on hold as per regulations in practice.

BHEL BHOPAL

BHEL APPROVED SOURCES

Sl. No	Material	BHEL Approved sources
1.	BHEL approved sources for copper (raw material) to be used for making rectangular copper wire	Hindalco Industries Ltd. Mumbai
		Hindustan Copper Ltd Mumbai
		Sesa Sterlite Limited Mumbai
2.	BHEL approved sources for polyester film backed epoxy mica paper tape to BHEL Bhopal spec BP-25185	M/s Lakshmanan Isola Pvt. Ltd., Bangalore
		M/s Cogebi, Malaysia (Supplier Grade - KALASTIK 45.030)
		M/s Isovolta, Austria (Supplier Grade - CONDUCTOFOL 2009)
		M/s Vonroll, Switzerland (Supplier Grade - SAMICAFILM 315.14)
		M/s Krempel, Germany (Supplier Grade - KREMICA.FLEX K1034-09)
3.	BHEL approved sources for Polyester film non-adhesive tape to BHEL Bhopal spec BP-22887	M/s Dupont India Pvt. Ltd. (Supplier Grade – Mylar A/ Melinex S)
		M/s Mitsubishi (Supplier Grade - Hostaphan RNK 19)

“Name of the firm”

PQR/ISE/MTCW/EOI/2019/46

ANNEXURE -2

Page 1 of 2

1.0 ORGANISATION CHART

Place/ paste organization chart here

“Name of the firm”**ANNEXURE -2**

Page 2 of 2

2.0 QUALIFICATION / EXPERIENCE OF PERSONNEL

Qualification of key personnel and the officials deployed

SL No	Name	Designation	Technical qualification	Experience	Responsibility

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature

“Name of the firm”

ANNEXURE-3

Page 1 of 1

1.0 AVAILABILITY OF MACHINERY & PLANTS (M&P) WITH THE FIRM

Sl. No.	Details of the M&P						
	Name of M&P	Model	Make	Machine No.	Year of Built	Range /Capacity	Proof of owner ship

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature

“Name of the firm”

ANNEXURE- 4

Page 1 of 1

1.0 AVAILABILITY OF TESTING FACILITIES WITH THE FIRM

Sl. No.	Details of the TESTING FACILITIES						
	Name of TESTING FACILITY	Model	Make	Machine No.	Year of Built	Range /Capacity	Proof of owner ship

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature

QA Plan No.-----

Document no. QAP/001 Rev00



PQR/ISE/MTCW/EOI/2019/46

ANNEXURE-5

“Name of the firm”

QUALITY ASSURANCE PLAN for “Name of item/Components/material”

Page 1 of 4

1.0 PROCESS FLOW CHART OF MANUFACTURING PROCESS:

Place/ paste process flow chart here

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature

QA Plan No.-----

Document no. QAP/001 Rev00



PQR/ISE/MTCW/EOI/2019/46

ANNEXURE-5

“Name of the firm”

QUALITY ASSURANCE PLAN for “Name of item/Components/material”

Page 2 of 4

2.0 INCOMING RAW MATERIALS/PARTS/SUB-ASSEMBLIES

Sl. No.	Incoming Materials / Parts / Sub-assemblies	Name of the sources	Sample Size & Frequency of Inspection	Parameters for Inspection	Mode of Inspection / Equipment used	Acceptance Limits / Criteria / Specified value	Rejection Details/ Reprocessed/scrapped

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature

QA Plan No.-----	Document no. QAP/001 Rev00	
------------------	----------------------------	---

PQR/ISE/MTCW/EOI/2019/46

ANNEXURE-5

“Name of the firm”

QUALITY ASSURANCE PLAN for “Name of item/Components/material”

Page 3 of 4

3.0 IN-PROCESS INSPECTION (OF THE PRODUCT)

Sl. No.	Subject / Product / Process	Sample Size & Frequency of Inspection	Parameters for Inspection	Mode of Inspection / Equipment used	Acceptance Limits / Criteria / Specified value	Rejection Details/ Reprocessed /scrapped	Traceability register no.

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature

QA Plan No.-----

Document no. QAP/001 Rev00



PQR/ISE/MTCW/EOI/2019/46

ANNEXURE-5

“Name of the firm”

QUALITY ASSURANCE PLAN for “Name of item/Components/material”

Page 4 of 4

4.0 FINAL INSPECTION OF THE PRODUCT

Sl. No.	Subject / Product / Process	Sample Size & Frequency of Inspection	Parameters for Inspection	Mode of Inspection / Equipment used	Acceptance Limits / Criteria / Specified value	Rejection Details/ Reprocessed /scrapped	Traceability register no.

PREPARED BY	APPROVED BY
Name & Signature	Name & Signature